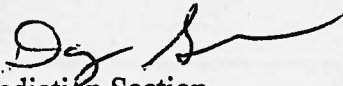


UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
REGION II

1003 87 SEP  
DATE: SEP 28 2001

SUBJECT: Approval of the Remedial Action Report for Phase 1 of the Li Tungsten Superfund Site  
Remediation

FROM: Doug Garbarini, Chief   
Eastern New York Remediation Section

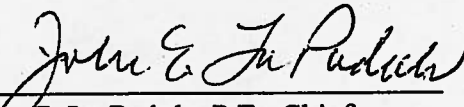
TO: John E. La Padula, P.E., Chief  
New York Remediation Branch

Attached for your approval is a Remedial Action Report documenting the completion of the Phase 1 work at the Li Tungsten Superfund site.

Please denote your approval of the subject document by signing below.

Attachment

Approved:



John E. La Padula, P.E., Chief  
New York Remediation Branch

9/28/01  
Date

INTERIM  
REMEDIAL ACTION REPORT  
FOR  
OPERABLE UNIT 1 - PARCEL A + LOWER PARCEL C  
EXCAVATION AND OFFSITE DISPOSAL OF CONTAMINATED SOIL

LI TUNGSTEN SITE  
GLEN COVE  
NASSAU COUNTY, NEW YORK

SEPTEMBER 2001

## TABLE OF CONTENTS

<u>Section</u>	<u>Title</u>	<u>Page</u>
1.0	INTRODUCTION	1
	1.1 Site Description	
	1.2 Site History	
2.0	OPERABLE UNIT BACKGROUND	3
3.0	REMEDIAL CONSTRUCTION ACTIVITIES	5
	3.1 Details of Construction Activities	
4.0	CHRONOLOGY OF OU 3 and OU 4 EVENTS	9
5.0	PERFORMANCE STANDARDS AND CONSTRUCTION QUALITY CONTROL	10
6.0	FINAL INSPECTIONS AND CERTIFICATIONS	12
7.0	SUMMARY OF PROJECT COSTS	12
8.0	OBSERVATIONS AND LESSONS LEARNED	12
9.0	CONTACT INFORMATION	14
10.0	APPENDICES INDEX/SIGNATURE	14

## **1.0 INTRODUCTION**

This document presents the Remedial Action Report (RAR) for "Phase 1" of the operable unit (OU)1 remedy entailing excavation and offsite disposal of contaminated soil for the Li Tungsten Site in Glen Cove, Nassau County, New York. The scope of the Phase 1 RAR includes the southern half of the OU1 remediation area, involving Parcel A and lower Parcel C of the Li Tungsten facility.

### **1.1 Site Description**

The Li Tungsten Superfund Site consists of a former 26 acre tungsten processing facility, as well as a nearby 23 acre property known as Captain's Cove where the tungsten facility operators disposed of waste slag. Ore-processing operations were conducted on Parcel A, bordered by Glen Cove Creek to the south and Herbhill Road to the north, and Parcel C, which is immediately west of Dickson Lane. Parcel B, which is bordered by Herbhill Road on the south and Dickson Lane on the west, is undeveloped and was used primarily for employee parking and land disposal of spent ore residuals. The Captain's Cove property is approximately 1000 feet west of the Li Tungsten facility, bordered by Garvies Point Road to the north and Glen Cove Creek to the south.

### **1.2 Site History**

The Li Tungsten facility was operated from the 1940's to approximately 1984 by a succession of corporate entities, the last of which was the Li Tungsten Corporation. Operations involved the processing of ore and scrap tungsten concentrates to ammonium paratungstate (APT) and subsequently formulating APT to metal tungsten powder and tungsten carbide powder. Other specialty metal products were also produced. Most of the daily processing activity took place on Parcel A, while Parcel C was used for wastewater treatment, processing, storage and disposal of ore residuals. Parcel B was used as a parking area, as well as for disposal of ore residuals. The facility was acquired by the Glen Cove Development Corporation (GCDC) from the Wah Chang Smelting and Refining Corporation in 1984 and leased to the Li Tungsten Corporation. The Li Tungsten Corporation declared bankruptcy in 1985.

Since the late 1950's, Captain's Cove has been a dump site for the disposal of incinerator ash, sewage sludge, rubbish, household debris, Glen Cove Creek sediments and industrial wastes, including Li Tungsten ore residuals. The site was purchased by Village Green Realty in 1983 in order to construct a condominium development. Redevelopment efforts were abandoned in the mid-1980's when the New York State Department of Environmental Conservation (NYSDEC) designated the property as a State Superfund site. The NYSDEC requested that EPA address the contamination associated with the ore residuals from the Li Tungsten facility, while the State addressed other contamination under the State Superfund program. EPA subsequently included the areas of Captain's Cove where ore residuals were disposed as part of the Li Tungsten site after sampling showed that the residuals were similar to those at the Li Tungsten facility.

EPA activities at the Site included supervising a removal action performed by the GCDC at the Li Tungsten facility in 1989-90. A major removal action was performed by EPA's Removal Action Branch from 1996-98, primarily to address the hazards associated with approximately 270 on-site storage and process tanks. These tanks were primarily above-ground on Parcel A, and distributed both inside and outside of site structures. As part of the removal action, both the Dice Complex and the East building on Parcel A required demolition in order to safely access and dispose of tanks and associated piping.

EPA conducted a comprehensive remedial investigation/feasibility study (RI/FS) at the Site from 1993 to 1999, which also included interim cleanup activities such as debris and vegetation disposal, bulkhead repair, and ore consolidation/relocation. The EPA signed a Record of Decision (ROD) in September 1999 which selected a comprehensive remedy for both the Li Tungsten facility, which was designated OU1, and the Captain's Cove ore residual disposal areas (OU2). The selected remedy primarily involved excavation and off-site disposal of an estimated 67,000 cubic yards (cy) of radioactive and heavy-metals contaminated wastes.

The NYSDEC signed a State ROD in March 1999 for the chemical contamination at Captain's Cove, calling for excavation and off-site disposal of all hazardous wastes and debris outside of the ore residual disposal areas.

In December 1999, EPA issued general notice to the potentially responsible parties (PRPs) identified to date, providing them with the opportunity to perform the remedial design (RD) for the northern half of the Li Tungsten facility. EPA then issued special notice for implementation of the Phase 2 remedial action (RA) i.e., the remainder of OU1, comprising the northern half of the Li Tungsten facility, in March 2000. Negotiations with the PRPs were generally not successful, resulting in EPA's issuance of a unilateral administrative order (UAO) in May 2000 to perform the RD and a subsequent UAO in September 2000 to perform the RA. However, EPA separately negotiated a cost recovery settlement with one of the PRPs, the City of Glen Cove, by which the City would provide funds up to \$3 million to EPA to perform RA work at Captain's Cove (OU2).

The Army Corps of Engineers initiated a dredging program for the inner half of Glen Cove Creek in September 2000, which yielded about 20,000 cy of dredge spoils before it was suspended as a result of the discovery of radioactive materials in the sediments presently drying on Parcel A. EPA's ROD did not call for the remediation of Glen Cove Creek. Although contamination of creek sediments with various heavy metals and organic compounds has been periodically confirmed through earlier sampling events, no radioactive contaminants were ever detected. EPA had given the Corps permission to dry the sediments on Parcel A of the Li Tungsten site, after completion of EPA's remediation of that parcel. The Corps wished to use Parcel A because it was large, vacant, and overlaid with concrete, which would serve as a barrier to any infiltration of elutriate from the drying spoils. Prior to the use of Parcel A, the Army Corps ensured the integrity of the concrete barrier through the use of concrete patches and synthetic membranes.

The City of Glen Cove is ultimately responsible for the disposal or beneficial reuse of the dried sediments. EPA has recently issued a UAO to several Li Tungsten PRPs to address the radioactive materials present in the dredged materials.

## 2.0 OPERABLE UNIT BACKGROUND

This RAR is for the completion of remedial action associated with Phase 1 of the Li Tungsten Site. Phase 1 is a fast track remediation of a portion of OU1, as described earlier in this document and in the **SELECTED REMEDY** portion of the September 1999 Record of Decision (ROD).

The selected remedy in the ROD at both the Li Tungsten facility and the Captain's Cove property included excavation, volume reduction, and off-Site disposal of all radioactive/chemical waste soil and sediments, consistent with the following cleanup levels:

PARAMETER	CLEANUP LEVEL	REMARKS
Lead	400 mg/kg	soil
Lead	31 mg/kg	sediment
Arsenic	24 mg/kg	soil
Arsenic	6 mg/kg	sediment
Radium <sup>226</sup>	5 pCi/g	>background
Thorium <sup>232</sup>	5 pCi/g	>background
PCBs	1 mg/kg	<2 feet depth (Parcel B)
PCBs	10 mg/kg	>2 feet depth (Parcel B)

mg/kg = milligram/kilogram

pCi/g = picocuries/gram

In developing the final soil cleanup levels, consideration was given to risks posed by the contaminants under the reasonably anticipated future use of the Site as a commercial "Seaport-style" tourist area; cleanup levels utilized by the NYSDEC and the NYS Department of Health for the State Superfund cleanup at Captain's Cove; and the New York State TAGMs. The selected contaminants are intended to be indicators for other co-located metal contaminants. Due to the spatial and vertical location of contaminants of concern determined during the RI/FS, achieving the cleanup levels for the indicator contaminants should also adequately address other site-related

contamination in soils and sediments. In addition, total PCBs were found in significant concentrations only in the dumping area of Parcel B at the Li Tungsten facility; therefore, the cleanup levels for PCBs are meant to address the PCB contamination in that area.

The ROD estimated that excavation would yield an estimated 18,300 cy of radioactive wastes and 17,300 cy of nonradioactive metals-contaminated wastes at the Li Tungsten facility. At Captain's Cove, excavation was estimated to yield 13,200 cy of radioactive wastes and 20,550 cy of nonradioactive, metals-contaminated wastes. Therefore, the total estimated Sitewide excavation volume was 69,350 cy (31,500 cy above radioactive criteria and 37,850 cy non-radioactive but otherwise contaminated). The ROD also encouraged segregation of radioactive and nonradioactive wastes in order to minimize the volume of material requiring disposal at expensive and distant radioactive waste disposal facilities. Some or all of the remaining non-radioactive wastes were anticipated to contain other contaminants, particularly heavy metals associated with the processed ores. These wastes would be disposed of at off-Site RCRA Subtitle D facilities, unless toxicity characteristic leaching procedure (TCLP) testing indicated that they were characteristically hazardous, in which case they would be disposed of at a RCRA Subtitle C facility. Excavated soils that did not exceed cleanup levels or contain debris could be used as backfill. In addition, a minimum of two feet of clean fill would be used to complete the backfilling to match the surrounding grade.

The ROD also required the following actions in addition to excavation:

- Off-site disposal of radioactive waste located in the Dickson Warehouse at an appropriately licensed facility;
- Building demolition at the Li Tungsten facility;
- Storm sewer and sump cleanouts at the Li Tungsten facility;
- Institutional controls governing the future use and construction at the Site;
- Decommissioning of Industrial Well N1917 on Parcel A;
- Collection and off-site disposal of contaminated surface water from Parcels B and C; and
- Implementation of a long-term groundwater monitoring program.

After evaluating various groundwater alternatives and consideration of community acceptance, the ROD also selected **No Action** to address contaminated groundwater at the Li Tungsten facility (OU1). Because there was no evidence of groundwater being contaminated with radionuclides at Captain's Cove, no remedial alternatives for groundwater were evaluated for OU2.

However, the ROD did require groundwater monitoring of the Upper Glacial Aquifer in the vicinity of the Site to determine the effects of the soil remedy on groundwater quality. EPA anticipates that the excavation of inorganic contamination to the specified cleanup levels will greatly reduce leaching of the contaminants of concern in the soil to groundwater. As a result, the groundwater beneath the Site is expected to improve after excavation is completed. Additional monitoring wells



will be added to the existing monitoring well network to increase the network's coverage in areas of known contamination.

The ROD envisioned that the implementation of the selected remedy would allow redevelopment of the Li Tungsten Superfund Site in substantial conformance with the City of Glen Cove's Revitalization Plan. The accelerated placement of these properties back into a commercially viable scenario would also meet the primary objective of EPA's "Recycling Superfund Sites" initiative. Soon after the issuance of the ROD, EPA initiated a fund-lead response to expedite the soil remedy for Phase 1, which included the southern portion of the Li Tungsten facility, encompassing Parcel A, lower Parcel B and lower Parcel C. The estimated volume of soil requiring excavation in these areas was estimated at approximately 5,000-6,000 cy, a disproportionately small volume of the facility's contaminated soils. The southern portion of the Li Tungsten property is also a very significant part of the City's Creek revitalization plan.

Therefore, in February 2000, EPA mobilized its Removal Action Branch to the Site to perform Phase 1. The Phase 1 scope of work specifically included the excavation of all soil and sediment exceeding the ROD cleanup criteria; demolition of the Carbide Building and Lab/Office/Wire Building complex and segregation and decontamination, if possible, of radioactive building debris; staging of excavated soil and building debris that exceeded radioactive cleanup criteria in the Dickson Warehouse for future offsite disposal by potentially responsible parties; disposal of any non-radioactive, heavy metals-contaminated soil as well as non-radioactive building debris at appropriate off-site disposal facilities; sampling/analysis to confirm excavation pits have met cleanup criteria; flushing, collection and disposal of contaminated sediments from storm sewers under the Phase 1 remediation area; and decommissioning of industrial well N1917 on Parcel A.

After work was initiated, subsequent increases in volume estimates and remediation costs caused EPA to reconsider the scope of Phase 1, resulting in the decision that Phase 1 would be terminated when Parcel A and lower Parcel C had been remediated. Implementation of the remainder of OU1, involving excavation of contaminated soil, sediment, and ore residuals from all of Parcel B as well as upper Parcel C, is anticipated to be performed by PRPs at some future date.

### **3.0 REMEDIAL CONSTRUCTION ACTIVITIES**

#### **3.1 Details of Construction Activities**

Construction activities were regularly documented by EPA's Removal Action Branch in pollution reports, or "POLREPS". The first POLREP for Phase 1 was filed on February 21, 2000 for the period covering 1/26/00 to 2/18/00. Mobilization activities included securing trailers, utilities, subcontractors, equipment and supplies. Local and County officials also received notification of the Phase 1 RA. The initial remediation strategy included the sequential remediation of the three Phase 1 Parcels, starting with Parcel A.



### Parcel A

Initial activities on Parcel A included the demolition of the lab/office/wire complex of buildings, as well as the Carbide building. The East Building and the Dice complex of buildings had been razed during an earlier removal action, thereby leaving the Loung Building as the only remaining structure now present on Parcel A. Demolition proceeded after radiation screening of each room and removal of any radiation-contaminated or asbestos-containing material. Following demolition, debris was staged in a lay-down area and screened again for radiation, then segregated and crushed in preparation for offsite disposal or recycling. Radioactive debris was placed in interim storage in the Dickson Warehouse on Parcel C.

Next, soil excavation began at the east end of Parcel A and proceeded to all areas of contamination identified during the remedial investigation, as well as contaminated building sumps and additional areas identified through subsequent sampling activity and extended radiation screening during the course of Phase 1. All excavated soil was screened for radiation and staged according to its radioactivity. Any material exceeding radiation criteria was staged in the Dickson Warehouse, although pressure washing of radioactively contaminated debris was sometimes successful in decontaminating debris for off-site disposal. Non-radioactive soil in the identified areas was sampled for TCLP, as well as for target compounds and target analytes (TCL/TAL) and disposed of as appropriate. Boundaries for each excavation area were pursued until field screening results indicated no further contamination. At that point, post excavation samples were collected and sent offsite for laboratory analysis. For safety and logistical reasons, the excavation would be backfilled with certified clean fill material in anticipation of negative results. However, if the analyses indicated that the walls or floor of the area were still above cleanup criteria, re-excavation of the contaminated area was performed to remove the contaminated soil until the excavation was below cleanup criteria. If the floor of the excavation was contaminated, excavation would continue until cleanup criteria was achieved or the water table was encountered. If the water table was encountered first, the excavation would then be backfilled as long as radiation criteria had been met.

Remediation of Parcel A included the excavation of 28 discrete areas of contaminated soil. Work was often hampered by rain water runoff, underground springs, and a fluctuating groundwater table.

During the excavation work on Parcel A, storm sewers underlying the parcel were either flushed clear or, in the instance of one storm sewer pipe under the eastern end of the parcel, partially removed. Also, industrial well N1917 was decommissioned at the end of June 2000 by means of demolition of the small pump house over the wellhead, followed by removal of the pump and motor and subsequent filling of the well casing with a mixture of sand and concrete by a licensed well drilling subcontractor.

Due to contracting difficulties with a disposal subcontractor, offsite disposal of nonradioactive metals-contaminated soil staged on Parcel A was delayed in June 2000. In order to accommodate the Army Corps of Engineer's navigational of Glen Cove Creek dredging plans which called for the use of Parcel A in July as a sediment drying area, EPA transferred all the soil requiring offsite disposal to Parcel C. EPA had given prior approval of the use of Parcel A for the drying of dredged material, conditioned on the sealing of the concrete surfaces upon which the sediment would be placed. EPA completed transfer of the soil from Parcel A to Parcel C by June 17, 2000, which completed the remediation of Parcel A.

The final volumes and disposition of material removed from Parcel A are as follows:

Material Type	Quantity	Disposition
Debris - masonry	1783 tons	Waste Management, NY
- steel	310 tons	Mid Island Salvage, NY (recycled)
- construction	698 tons	Waste Management, NY
Asbestos	60 yards	Superior Greentree, PA
Soil - exceeds ROD radioactive criteria	528 yards	Dickson Warehouse
- nonradioactive, exceeds ROD metals criteria	2295 tons	Subtitle D landfill
RCRA hazardous waste	0	N/A
Protective equipment (PPE)	60 yards (estimated)	Subtitle D landfill

### **Parcel C**

In early May 2000, as work was being completed on Parcel A, excavation activities began on Parcel C. Initially, a radiation survey was performed, followed by brush clearing and decontamination of the tank pad for the former 500,000 gallon oil tank for use as a soil staging area. Excavation work on Parcel C was now facilitated by the use of x-ray fluorescence (XRF) instrumentation and a Canberra Genie 2000 Spectroscopy Counting System, which were mobilized to the Site in May to improve the speed and accuracy of screening excavation samples for heavy metals and radionuclides, respectively. EPA's procedures for handling concrete, steel and other debris at Parcel C were similar to procedures utilized on Parcel A, with materials that exceeded radioactive criteria being sent to the Dickson Warehouse and other materials disposed or recycled

offsite as appropriate. With the improvements in field screening capability, however, the excavation work now proceeded as follows: excavations were performed in two foot lifts, after which the floor of the excavation would be screened. The excavation would then continue in two foot lifts until screening levels suggested that the excavation was complete, or the water table was encountered. Excavated soil would then be transferred to a staging area and laid out in six inch layers and screened again. Samples from the area with the highest radiation counts would be collected and quick counted on-site to determine radioactivity. Any material exceeding the established radiological cleanup levels would then be transferred to the Dickson Warehouse. Soil below the radiation criteria would be analysed with an XRF unit to determine the concentrations of lead and arsenic. Material failing for these metals would be staged for disposal while that which passed was used as fill material. The lateral and vertical boundaries for each excavation area would be pursued until field screening results reached acceptable levels or the water table was encountered. Post excavation sampling of each area for radiation and metals would then be performed utilizing field instrumentation with verification from an outside laboratory. Following receipt of the lab results, the excavations would be backfilled with certified clean fill and compacted.

Remediation of Parcel C included the excavation of 10 areas of contaminated soil. While these areas were originally considered discrete, many of them became essentially contiguous as excavation progressed, primarily because the levels of arsenic contamination above cleanup levels proved to be more pervasive than originally estimated. Therefore, most of the areal extent of lower Parcel C actually required excavation.

Excavation work on lower Parcel C was severely impacted by limited operating space, as well as delays due to wet weather, with overland runoff collecting in excavation areas resulting in chronic saturated soil conditions. Toward the completion of remedial work, excavation on the southern end of lower Parcel C required importation of large quantities of powdered lime to help solidify the saturated soils requiring excavation.

The final volumes and disposition of material removed from Parcel C are as follows:

Material Type	Quantity	Disposition
Debris - masonry	30 tons	Waste Management, NY
- steel	0 tons	N/A
- construction	60 tons	Waste Management, NY
Asbestos	0 yards	N/A
Soil - exceeds ROD radioactive criteria	1188 yards	Dickson Warehouse
- nonradioactive, exceeds ROD metals criteria	15,804 tons	Subtitle D landfill
RCRA hazardous waste	0	N/A
Protective equipment (PPE)	90 yards (estimated)	Subtitle D landfill

#### 4.0 CHRONOLOGY OF EVENTS FOR PHASE 1 OF OU1

October 1992	Final Listing on National Priorities List
September 1999	Record of Decision for OU1 and OU2
December 1999	Statement of Work for Phase 1, OU1
January 2000	Delivery Order/Notice to Proceed issued to contractor
February 2000	Mobilization to Site: Commencement of Parcel A remediation
May 2000	Commencement of Parcel C remediation
July 2000	Completion of Parcel A remediation
January 2001	Decision to remove lower Parcel B from SOW
June 2001	Completion of Parcel C Remediation
August 2001	Final Inspection

## **5.0 PERFORMANCE STANDARDS AND CONSTRUCTION QUALITY CONTROL**

Earth Tech Inc. developed a Quality Assurance Project Plan (QAPP) in response to the requirements in their subcontract. This document described the methods, standards, inspection, testing, and documentation requirements which were used to ensure quality control during excavation. This also included a description of the anticipated protocols for instrument surveying, sampling and analytical methods that would be used to determine the achievement of cleanup criteria during remedial action.

Excavation areas were labelled through use of an alphanumeric system. Confirmatory sampling for laboratory analysis to determine whether the cleanup levels had been met was performed in each excavation by sampling the "walls" and "floor" of the excavation. For each surface, five samples were typically secured, usually with one in the approximate center of the surface and the other four evenly distributed from the center. The five samples would then be composited and the results of the composited sample compared to the cleanup levels described in **2.0 OPERABLE UNIT BACKGROUND**, above.

Analyses of the confirmatory soil samples for Parcels A and C are summarized below:

**Li Tungsten Superfund Site  
Remedial Action Report**

Excavation Areas - PARCEL A	Confirmatory Composite Sampling Results			
	Arsenic (mg/kg)	Lead (mg/kg)	Radium <sup>226</sup> (pCi/g)	Thorium <sup>232</sup> (pCi/g)
1	31	160	1.4	3.54
1a	26	200	1.48	3.16
1b			1.07	4.54
1c			.96	3.33
2	24	68	.92	2.32
2a	41	25	1	2.68
3	12	160	1.62	3.57
3a	28	180	1.12	1.29
4			1.12	1.29
4a			.89	4.85
5	580	100	.533	1.12
6			1.42	1.74
7	20	61	1.2	5.9*
8 (subareas a through f)	13	43	.8	1.52
9			1	1
9a	1.4	28	1	3.1
9b	110	190	1	3.1
10	2.1	28	.9	1.95
10a			.6	2.48
10b			.8	4.35
41			.9	1.2
42			.9	1.2
<b>LOWER PARCEL C</b>				
13	840	320		
13a	170	350	1	1
14	110	220		
14a	39	790	1	2.5
15	82	400	1	1
15a	20	40		
15b	58	150		
15c	12	32		
16	747	686		
17	1120	807		

\* Area 7 could not be further excavated due to intrusion of water. This excavation was greater than 8 feet below grade. Background radiation levels were 1 pCi/gm

## **6.0 FINAL INSPECTIONS AND CERTIFICATIONS**

On August 2, 2001, a final inspection of the completed remediation for Phase 1 was conducted at the Site. Present at the inspection was EPA's on-scene coordinator and remedial project manager. Based on the inspection, the Agency believes that the remedial measures implemented during Phase 1 by EPA's Removal Action Branch are now fully completed and in conformance with the Record of Decision. Therefore, this inspection has been deemed a final inspection. The NYS Department of Environmental Conservation has reviewed this Remedial Action Report and agrees with its findings.

## **7.0 SUMMARY OF PROJECT COSTS**

The amount of extramural funds obligated for the remediation under Phase 1 was \$4,437,000. As of July 2001, approximately \$4,368,761 has been spent in completing the Phase 1 remedial work. It is anticipated that after final cost accounting is completed, the amount spent will be very close to the obligated amount. No operation and maintenance costs will be incurred as a result of Phase 1 implementation.

The ROD did not include an estimated cost for Phase 1, since Phase 1 only included a partial remediation of the Li Tungsten facility. Nevertheless, EPA estimated at the commencement of Phase 1 that, based on the feasibility study estimate of contaminated soil in the Phase 1 area, approximately \$ 2 million would be necessary to complete the Phase 1 work. EPA anticipates that final cost accounting will result in Phase 1 costs in excess of 100% of the pre-remedial estimate. The reasons for the difference between estimated and actual cost are described more fully below, under **OBSERVATIONS AND LESSONS LEARNED**.

## **8.0 OBSERVATIONS AND LESSONS LEARNED**

A major factor that significantly altered the original cost and schedule estimate for this project was the pervasiveness of arsenic above cleanup levels in areas not targeted by the RI/FS. Arsenic is relatively mobile in soil compared to the radionuclides of concern, particularly in low pH environments of the sort that have typically existed on lower Parcel C. Lower Parcel C was a wastewater treatment area when the facility was operational, as well as an historical sink for upland acidic runoff from ore piles on upper Parcel C. While the mobility of arsenic was recognized during EPA's feasibility study, the estimate of contaminated soil that was generated during the study did not sufficiently account for the chronically wet and acidic nature of lower Parcel C and the subsequent ease with which arsenic moved under such conditions. As a result, the initial estimate of contaminated soil was low. Cost and schedule impacts resulted as excavation under Phase 1 proceeded; consequently, EPA decided to limit the scope of Phase 1 by excluding lower Parcel B.



Other factors also impacted cost and schedule, but to a less significant degree. These factors included labor issues with local unions that were raised after EPA mobilized to the Site, which ultimately required EPA to modify its worker pay scale to reflect Long Island wages as per the Davis Bacon Wage Act. Frequent rain and generally wet conditions also significantly hampered excavation activity.

EPA's good relationships with the City government and other local stakeholders resulted in a minimum of distractions and interruptions from external parties. The Li Tungsten Task Force has provided a continuing forum for EPA to provide information on a regular basis to a representative group of parties interested in the Li Tungsten site. The formation of such a group would be a recommended approach in managing any large Superfund site with the potential for acute public interest or controversy.

## **9.0 CONTACT INFORMATION**

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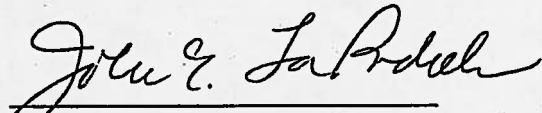
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**10.0 APPENDICES**

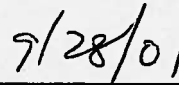
A) List of References

B) Map of Site - Phase 1 project area + excavations

Approved:



John E. La Padula, P.E., Chief  
New York Remediation Branch



Date

## APPENDIX A

### References:

- 1) EPA - Region II Record of Decision for the Li Tungsten Superfund Site - September 29, 1999
- 2) EPA Removal Action Branch - POLREP No. 1 (February 21, 2000) through POLREP No. 43 (May 4, 2001)
- 3) EPA - Close Out Procedures for National Priorities List Sites, OSWER Directive 9320.2-09A January 2000

